

***IN THE UNITED STATES PATENT AND TRADEMARK OFFICE
BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES***

Applicant: Takayuki ASAI

Title: OBJECT FILTERING METHOD
AND CLIENT DEVICE USING
THE SAME

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REPLY BRIEF UNDER 37 CFR 41.41

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Sir:

Applicant presents this Reply Brief in response to the Examiner's Answer filed on June 19, 2007. Applicant wishes to briefly address certain points raised in the Answer.

I. Response to the Examiner's Answer to Appellant's First Argument:

Independent claim 1 recites, among other features, "periodically monitoring a residual amount of memory capacity in the client during said session to provide a plurality of monitoring results, said residual amount of memory capacity being an amount of unused memory capacity in the client that is free to accept data received by the client". (Emphasis Added).

On page 17 of the Examiner's Answer, the Examiner states with respect to the Huang reference that, "[i]t is very clear that every time a user makes a request on a device, a size of a

graphics memory can be sent to the local proxy and therefore can be interpreted as the system ‘periodically monitoring’ the device.” (Emphasis Added). The Examiner further states that, “[i]n the understanding of different scenarios and interpretations, one can interpret the graphic memory as being empty and when a request is made the RHI that is sent states that the PDA can hold up to 2M bytes of information at the point in time the requested image is sent to the device, or other interpretations stated above.” (Examiner’s Answer; pages 17-18).

However, contrary to the Examiner’s assertion, sending the size of a graphics memory to a local proxy every time a user makes a request on a device is completely different than periodically monitoring a residual amount of memory capacity in a client during a session to provide a plurality of monitoring results, where the residual amount of memory capacity is an amount of unused memory capacity in the client that is free to accept data received by the client. This is apparent for at least the following two reasons.

First, the size of graphics memory in Huang provides no information about an amount of unused memory capacity. (Huang; column 5, lines 49-65). There is no constraint in the system of Huang that a request can only be sent when the graphics memory is empty. (Huang; column 5, lines 49-65). Indeed, it is highly likely that that the graphics memory of the client device in Huang will not be empty when an object is requested by the client device, because an example of a client device in Huang is a personal digital device (PDD), such as a PDA. (Huang; column 10, lines 35-36). It is common for PDAs to display operating system desktops when waiting for user input, and other windows or selection screens when accepting user requests. Thus, there is no assurance in the system of Huang that the graphics memory is unused when a request is sent by the client device. It should be understood that the client device in Huang never checks if the graphics memory is empty before sending a request, so there is no way in Huang to be sure that the graphics memory is unused when sending a request. (Huang; column 5, lines 49-65).

The Examiner’s Answer makes the unsupported statement that, “one can interpret the graphic memory as being empty and when a request is made the RHI that is sent states that the PDA can hold up to 2M bytes of information at the point in time the requested image is sent to the device”. (Examiner’s Answer; pages 17-18). Contrary to this assertion, one cannot interpret the graphics memory of Huang as being empty. The only information

provided in Huang about the graphics memory is the size of the graphics memory. (Huang; column 5, lines 55-60). There is no requirement in Huang that the graphics memory of the client device be empty when a request is sent or when an image is received. (Huang; column 5, lines 49-65). For example, it is common to use PDAs to download files while viewing other images and to not view the downloaded files immediately when they are received, but to view them sometime later after viewing the currently displayed images. Since Huang never monitors the graphics memory to determine an amount of unused memory capacity of the graphics memory, there is no information provided in Huang concerning an amount of unused memory capacity of the graphics memory. (Huang; column 5, lines 49-65).

Second, the size of graphics memory in Huang provides no information about an amount of unused memory capacity in the client device that is free to accept data received by the client device. (Huang; column 5, lines 49-65). For example, consider a situation in the system of Huang in which a storage memory of the client device is completely used and the graphics memory is currently being used to display an important image. In such a situation, if a request is sent for an additional image with information indicating the size of the graphics memory, there will be no place in the client device to store the additional image. As a consequence, the additional image would either have to be discarded without being stored, which would have wasted communication resources, or old objects would have to be deleted at the client device to make room for the additional image, which may result in important objects being carelessly deleted. That is exactly a type of problem that embodiments of the present invention seek to address. (Applicant's Specification; page 2, line 22 – page 3, line 7).

II. Response to the Examiner's Answer to Appellant's Second Argument:

Independent claim 12 recites, among other features, “wherein, when said control means detects that said residual amount of memory capacity of said memory means is equal to a predetermined residual amount or less, said control means notifies to said proxy server a filtering condition of the object transmitted to the client device.”

The Examiner appears to agree with Applicant that Ferguson does not notify to a proxy server a filtering condition based on a residual amount of memory. (Examiner's Answer; pages 18-19). The Examiner states that, "Huang teaches sending filtering conditions based on a residual amount of memory to a proxy", and that, "Ferguson is utilized to teach the more specific limitation of finding the residual amount of memory as is apparent by the algorithm utilized by Ferguson, column 11, lines 24 et seq.". (Examiner's Answer; page 19).

However, it should be understood that the client device of Huang merely sends a size of graphics memory with a request. The size of graphics memory in Huang is a total size of the graphics memory that does not change as data is stored in or erased from the graphics memory. (Huang; column 5, lines 49-65). The cache of Ferguson is different from a graphics memory in Huang, and Ferguson does not disclose or suggest monitoring a residual amount of memory capacity of a graphics memory. (Ferguson; column 11, lines 24-50). Moreover, even if the algorithm of Ferguson were used to determine a residual amount of memory capacity of the graphics memory in Huang, it would not change the "size of graphics memory" reported by the client device in the RHI of Huang, because the size of graphics memory in Huang is a total size of the graphics memory that does not depend on an amount of data currently stored in the graphics memory. (Huang; column 5, lines 49-65; column 10, lines 35-39).

The Examiner further states that the combination of Huang and Ferguson would provide, "the ability to not send data if memory is full and wait till [sic] memory is available to send such data." (Examiner's Answer; page 19). However, neither Huang nor Ferguson, alone or in combination, provide an ability to have a proxy server not send data to a client device if memory is full and to wait until memory is available to send such data. As is illustrated in Fig. 17 of Ferguson and explained at col. 11, lines 19-50 and col. 27, line 45 - col. 28, line 20 of Ferguson, the four options presented upon a "Cache Full" condition in Ferguson are: (i) auto-deletion of web pages; (ii) allow user to select which web pages to delete; (iii) change the capacity of the cache; and (iv) ignore the cache full message.

As a result, a combined system of Huang and Ferguson would merely allow for a total size of graphics memory of a client device to be transmitted to a proxy for filtering objects as in Huang, and separately allow for "Cache Full" conditions of a local cache used for storing

downloaded web pages to result in either web pages being deleted from a local cache or in a capacity of the local cache being changed as in Ferguson. (Huang; col. 5, lines 42-65) (Ferguson; Fig. 17; col. 11, lines 19-50). A “Cache Full” condition in a combined system of Huang and Ferguson would have no affect on a filtering condition, because Huang merely uses a total size of graphics memory for a filtering condition.

Conclusion:

For the foregoing reasons, Applicant requests the Board of Patent Appeals and Interferences to reverse the Final Rejection of the pending claims.

Respectfully submitted,

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